

ANTI/PIE/GI

PIETERS

ACTIC

BY LAND

1974/75

0037

P.E. PIETERS



BMR

CANBERRA

INDEX

Page	Subject

MB Vatz	Alfeldsp (Gram Fd)			Hypersthene-bearing			Mafic Rocks			Other		
	Qtz2 Fld	Qtz2 Fld etc (various)	Fld	Qtz2 Fld Hy	Cite Fld Hy	Qtz2 Fld Hy	Pla Hbl Ps	Pla Ps	Pla Anorth. Orthite	Ch2 Del	Ca Del	Si11 Cald (Qtz2) Garn (Fld)
Isotrope Massive Granulitic	Alaskite	Granulite	Syenite	Charn.	Manger.	Enderb.	Ps Amphib.	Pyri- Closite	Anorth. Orthite	Clear fate	Mar- ble	Calcic pyrox Gneiss
Plagioclase Anisotropic Foliated	Alask. Gneiss	Gneiss	Syen. Gneiss	Ch. Gneiss	Many Gneiss	End. Gneiss	Fel. Ps Amphib.	Fel. Pyri- Closite	Fel. Anorth. Orthite	Quartz Marble	Calcic pyrox Gneiss	SCG Augen Gneiss
Platy Granulitic	Alask. Granulite	Granulite	X	Ch. Granul.	Many Granul.	End. Granul.	X	X	X	Platy Quartz.	X	SCG Augen Gneiss
Anastom. Anisotropic Augen	Alask. Augen Gneiss	Augen Gneiss	Syen. Augen Gneiss	Ch. Augen Gneiss	Many Augen Gneiss	End. Augen Gneiss	Augen Ps Amphib.	Augen Pyri- Closite	Augen Anorth. Orthite	Augen Quartz	Augen Marble	SCG Augen Gneiss
Flaser	Alask. Fl. Gneiss	Fl. Gneiss	Syenite Fl. Gneiss	Ch Fl. Gneiss	Many Fl. Gneiss	End. Fl. Gneiss	Fl. Pyri- Closite	Fl. Pyri- Closite	Fl. Anorth. Orthite	Fl. Quartz	Fl. Marble	SCG Fl. Gneiss
Tiller	(Proterozoic on Isl.) Ultrabasic members of Charnockite Series Basic - - - - - Acidic - - - - -			a) biot. pyroxen. b) hypersthene c) coarse pegmat. d) charnockite ss. e) K-feld. plagi. hyp. (biot. hornbl.) f) Flag rich Charnock.								
	Garnet Granulites Ortho, Para Gneiss.			Metamorph. Biotite								

Communication Facilities

<u>Service</u>	<u>Location</u>	<u>Freq. available</u>	<u>Emission</u>
Field parties Liaison	Kinuckey Pkgs (a)	8110 KHz	SSB.
	Mawson (b)	5400 "	"
	Davis (c)	4040 "	"
	Nella Dam (d)	2720 "	"
Field parties	Base - Kinuckey Pks (a)	4040 "	"
	Field stations (b)	<u><u>2720 "</u></u>	"

Radio Callsigns

<u>Station</u>	<u>Voice</u>	<u>Morse CW</u>
Kinuckey Pks	Kinuckey Pks	VLVZ
Mawson	Mawson	VLV
Davis	Davis	VLZ
Field parties	Survey one, two <u>three</u>	SP1, SP2, SP3
Aircraft	Last 3 letters	
Ship	Nella Dam	OZVK..

Radio report

- ① Met rep ② status report on work & equipment
 ③ medical report if applicable.

Radio Schedules

GMT Local MBT

0045 0645

0530 1130

1130 1730

1730 2330

a	alpha
b	Bravo
c	charlie
d	DELTA
e	Echo
f	FOXTROT
g	golf
h	HOTEL
i	INDIA
j	JULIET
k	KILO
l	LIMA
m	MIKE
n	NOVEMBER
o	OSCAR
p	PAPA
q	QUEBEC
r	ROMEO
s	SIERRA
t	TANGO
u	UNIFORM
v	victor
w	WHISKEY
x	XRAY
y	Yankee
z	zebra

Wednesday 24 12 1974

Clear weather, Sunshine.

Left Hella Dan 17 30 hrs. helicopter developed troubles returning to Hella Dan and departed again 18.15 hrs. Flew to Alphonse I, however our triangulation point & proceeded to Rayner Peak. Set up tent ~~to~~ m from triangulation point.

PC 1-13 Hella Dan, pack ice / ice shelf, Hella Dan / pack ice / open sea, coastal area toward VII Bay - glaciers, Alphonse I, glaciers, Rayner P. as distance. PC ~~14-15~~ 17 NW side of Rayner with layers dipping NNW true and S, SW side of Rayner.

APh. K.E. ice shelf - Rayner Pl R7
8136 ✓

25.12.1974

PC 18219 Rayner P.

lul. SW behind main point K

Notes 135-315 M trend of

jointly widely spread.

laying of 1.33 $\frac{85}{30}$ M

Storage

Mw ~~Master~~ double peak: see Aph. Cape
160/40-45 M Rq. No. 135R (15)
Gottley Schwartz R.

PC 20 NE spur below camp

joint 140 trend M \perp
(see PC 18219) and 255-75 M trend \perp

PC 21 SW spur from 2nd main peak

photograph of following section only

Harbour part

PC 28829 & 30.



Garn. granulite (brct)

Sample 0014 α & feldsp rich layers
& garnet coarse.

Transition between granulite & pyroxenite ^{clastic}

Sample 0011 \rightarrow layering \wedge foliation.
some foliation recombines to flat (thin or planar)
ex. planes sub // layering.

pyroxenite ~~granulite~~ sample 0012 & 0013

Granulite

Grown, dark feldsp. pyrox. rich (pyroxenite?)

Wh. in massive g. w. garnet.
A. 1" deep, parallel rods. L. 1" long.
bottom layer plane 10' x 10' M.
S. 1' x 1' (compositions) T. 1' x 1' //

main layering

sample 0001

} 30cm

(P₁) Section along spar ~~SW~~ SW of
second main peak. Started from below where
snow stops in col.

Well layered sequence of light coloured to
whitish granulate with garnet & mica
and dark brown to almost black feldsp, mica
pyroxene (^{pyroxene} ~~hornblende~~?) rock. Contacts of layers
are abrupt or transitional. ~~with~~ Transitional
contacts show both rock types finer interlayered.
Layering seems to be consistent over long
distance (100m and over). At main peaks
~~the~~ crude layering persistent over several
100 metres. The dark rocks weather easily
and a little and show often ferruginous
coloring. In light ~~granite~~ granulate locally
fine layering (compositional) // main layering.
The @ rocks (or plates) are // aligned
sometimes showing lineation. The layering
seems to be consistent oriented over whole
of Rayner: ⁴⁵100 - ⁸⁵140 / 15-45 M.

Sample 0001 o/c garn. granulate.

Sample 0011 transitional layering / foliation clear.

Sample B1 lichen

Sample 0012 - 0013 pyroxene

(P₂) layer of 4cm thick very dark
to black felsic pyroxene rock (~~charnockite~~^{pyroxenite})
same as at P₁ but less weathered.
Also ~~interlayered~~^{interfused with} lighter colored
granulite.

Sample 0002

Rock shows fine fracturing (cleavage?)
spacing approx. 3-5 mm.

Thursday 26.12.1974 APh a/b

(P₃) near campy place
2, felsic pyrox (biot) rock (charnockite)
interlayered with blot. pyrox^{clastic}ite (felsic)
charnockite is relatively hard, while pyroxenite
weathers easily to Fe-oxide, crumbly
rock. layers 50 cm - 250 cm thick.
also fine (1-4mm) cleavage fracturing,
which appears to cut through grains.
Probably in fault because rocks are
shattered. Main int system veins
150 m. d. is \perp

Sample 0003 Charnockite.

sample 0004
laying: 120/20-15M

biot. pyroxene ^{clastic}

At triangulation point between pyrox.
and charnock is a lens of shrd,
fractured, shattered and alkali.
lens about 6 m along strike and
max. ~~20~~ ²⁰ m thickness.

Sample 0005 alkali

Just S of camping place, along gully
the pyrox. is also inter ^{layered} ~~bedded~~ with
a ~~finely~~ ^{banded} ~~layered~~ ^{mic.} fractured (cleavage!)
granulite with layering of Q & feldsp rich
layers, and a garn granulite mass
with the garnet concentr. in zones // layering.
Garnet is reddish and has reddish stains
in surrounding rock.

Sample 0006 banded granulite.

Sample 0007 garn. granulite

Sample 0008 ^{iclastic} pyroxene

Sample 0009 float Q + coarse garn + pyrox.



(P4) ^{not} 2nd small col of main col
thick sequence of massive red
to pinkish (weathering colour) Pyrox, Garnet
Feldsp, & granulite.

Garnet is reddish and occurs in clusters

Q is usually platy. Both oriented
~~roughly // layering~~
~~giving rise to not continuous~~ ~~crude~~ ~~foliation~~
~~layering 125/25.30 M~~

giving rise to not continuous ^{crude} foliation

roughly // layering.

layering 125/25.30 M: foliation 35/15 M.

P C 26 foliation in dip direction

P C 27 Lectione Ra from Rayner

Sample white out
010 granulite

This rock type seems to be particularly
good substrate for lichens. The rocks
are fairly to N and have many little
pockets with standing water in which
much growth occurs.

Sample B2 lichens.

(P5) 1st small col. SW of main col.

thick beds of (100-200 cm) of ~~metre~~^{light}.

gneiss interlayered with pyroxenite.

gneiss shows some folding, recumbent with ax. planes sub// layering.

some lenses of coarse (i-2) (fms) (feldspar & some q. Sample 0015 gneiss.

about 20 metres further SW (thus upward again) occurs rock type of (P4). Here the dark rock also cuts through the light color. meta-

morphics (dike about 200 cm thick)
(P6) 1st small col. SW of main col.

garnet alaskite again interlayered with pyroxenite

Sample 0016

Bob took 2 photographs with telephoto lens of Rayner peak where a thick dike is exposed. The Nos are 23 & 24.

Friday 27.12.74

A1ph a/b

(P7) of Garnet granulite (alaskite)
light grey, where fresh but in c/c the
rock has usually a ^{thin} ~~angel~~ ^{angel} zone of
mostly Q (+ some feldspar and garnet)
of a ~~brownish~~ very light grey to whitish
colour with red to brown ^{iridescent} staining.

P(31, 32) from top to bottom

- a 40 cm thick garnet granulite
medium gr. with fine (mm's) internal
layering // main layering garnet ^{gran} random
- b 6-10 cm thick coarse garnet granulite
with Q plates which are slightly steeper
than main layering. (approx. 30°) coarse garnet up to
1 cm diam. garnet grains random
- c 8 cm thick garn granulite as (a)
- d 8 cm " " " with
garnet concentr. in thin zones //
main layering. and also very thin
zones with fine c/c mineral, possibly an
omphacite.

Sample 0017

(d) check on c/c
mineral

Sample 0018

garnet granulite with
lower c.f. orient. Q plates

main layering garn. granulite $\frac{35}{90/20-30}$ M.
total thickness approx. 8m.

The ^{granulite} sequence is intruded, sills and
dikes by dark colored, Fe stained, coated
crumbly rock which easily weathers.

The rock consists of fine gr. amphibole
(more prob. than pyrox.) greenish feldspar,
reddish K, some mica, probably
metadiorite.

Sample 0019 metadiorite.

(P0) of garnet granulite
garnet concentrate in thin zones
sub// main layering.

P32 garn. granul. with crossbedding
and cut-and-fill structures??!

also some foliation, axial plane
sub// layering.

P33 garn. granul. foliation axial plane ^{sub}// layering.
granulite intruded by metadiorite.

34 snow overhang & wind gully in
snow SW end of Rayner.

RIPDON DEPOT.

Saturday. 20.12.1974

(Pg) PD 12 2 Approach of Rippon Cl.
dept from Rayner (S)

PD 47 looking S to Rayner

of from which I took samples (Pg)

PD 10 & 11. Folded, dated thin
dyke in charnockite

dykes trend around 180 M

and are approx. vertical.

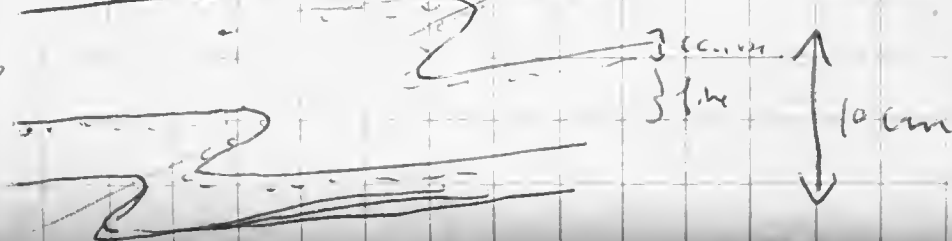
Sample 0020 dyke, metadolerite

foliated
PD 13 & 14 layers in charnockite
probably ~~met~~ dk. brown. colour
red is metadolerite.

layers 265/80-85 M.

Folded isoclinal, recumbent to a-sym.
only small scale A 5 cm to 3 cm.

Sample 0021 charnockite



At N. side of o/c (P.D 627)
dips change from $250/85$ ¹⁹⁵ ^M at W

215
to $270/85$ ^M at E.

At W. part occur same thin coarse (2-4 mm) (2 cm thick)

A vein which cut across the
lensing. Lensing is usually fine
and determined by cxi (1 mm) and
finer γ min charnockite, and by
difference in composition more or
less Fe my minerals versus $\pm 30\%$ Fe my
minerals.

The rocks are rounded by
abrasional working of ice but no
marks. Exfoliation weathering.

PD 16 bedded foliated charnockite

Thin layers of grey, glassy & and
thicker layers of brownish rock
with Fe my minerals (Fe staining)

Actually most rocks seem to be
evenly folded in small rock.

— Bird R. dip 50/45-50 M.

PD 18 Aker from Mueller.

PD 19-20 N. side of Aker ^{cliv} Brownish
massively layered red dip ^{approx 90} 145/6 M

PD 21 ~~Hard~~ Steepcut, Mueller
& Mt Cook (back) from Aker
dip slope Steepcut: 170/40-45 M
" Mueller 80/40-60 M.

~~Saturday~~

Sunday 29.12.1974

AKER PEAKS.

(Pic) Arch. Magnet Bay to Scott R
& 101, 9071 R.

PD 22 looking 285° M to Birds Edge
(more accurately) dip 10/60 M. Similar dip at
Bird R but looks steeper.

Samples. 0222, charman.

23

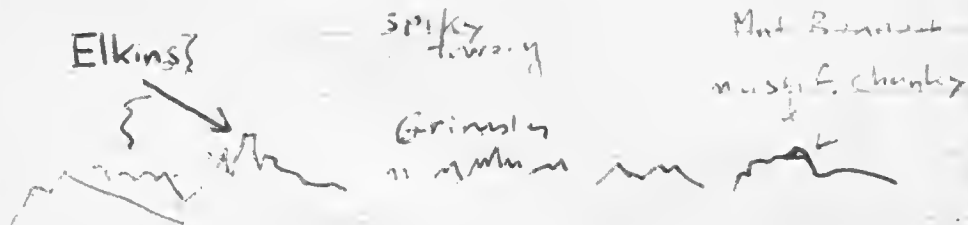
24

+ 1 vein.

Rocks of main Aker peaks &
surrounding rocks look the same.

Starkey 4.1.1975 NEWMAN NTKS

PD 28' to top 290 T to Mt
Bennet (big chunk, one at back, one
and Mt Condrington)



The spiky peaks show strong vertical zoning or fracturing ~~or~~ layering ~~and~~ (I couldn't see ^{clear} layering through binoculars.)

Part A of Pieters Mnt. is on top covered ~~in~~ with angular scree (very persistently) with bldgs from a few cm to about 50cm. From E the mnt looks flat on top, and on top it is smoothly undulating with steep cliffs at all sides except where A pines are in B. The gravel appears to concentrate in roughly ~~circular~~^{to irregular} hillocks between which small firm ~~dune~~^{grass-covered} hillocks diam. ~~2 to 5m.~~^{40cm to 80cm.} height difference ~~2m to 5m.~~

75-10

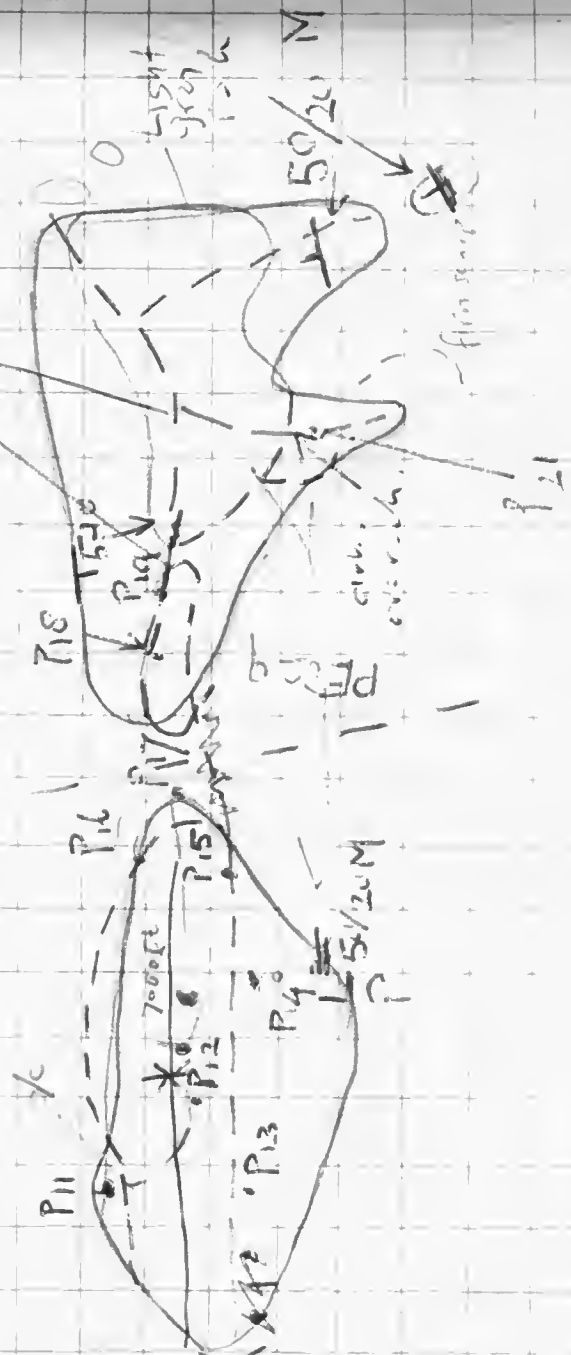
Mat. A

M₂B

11

1. problem
 not ~~the~~ ore
 , some growth
Q we are de
de in more de
 // longer

Pres.
Bureau
R. 1000
- Jan. 55.
under water
per minute.



(P11) See sketch map

short spur pointing N.

blackish, brownish Fe-ore rock overlying
pyrox., Q, feldsp. gneiss.

Only seen through lenticles, both rock types
have massive appearance

layering. 255/15 M.

1 prominent fracture 300/40 M

(P12) W/L 20 mtr. N & NW of tent. at foot of
summit spur.

Q - Fe ore rock; almost granoblastic

Layering caused by thin bands & lenses of
greyish Q and layers of Fe ore. Parallel
to this the rock is fracture layered from
massive (see P11) to a few cm thick.

Q bands/lenses ~~by~~ 2mm to 15cm thick
ore ~~lenses~~ layers 2mm to 7cm thick.

Fe ore makes up bulk of rock.

Rock is heavy, ~~but does not~~

~~it~~ affects compass needle, so probably
~~to the~~ magnetic (almost perpendicular
cleavage planes)
Blackish to reddish (brown) weathering

most prominent jntng at c/c 025/25 M

PD 30 & 31 o/c note jntng.

355
Layering 50/10-20 M.

Sample 0025 crse granoblastic Fe ore
bounded by 2 fracture planes // layering
Sample 0026 massive ^{medium} fine gr. ? Fe ore
+ Q layer.

On some weathering surfaces pitting //
layering. Cause?

(P13) o/c pyrox., Q, Feldsp. gneiss
pyroxene concentr. in thin laminae
or in irregular clusters.

medium gray to whitish rock.

It underlies the Q, Fe ore-rock with
rather abrupt contact (not exposed, but
noticeable in scree gravel). Contact trends
approx. E-W.

PD 29 gneiss + pyrox. laminae &
clusters. Laminae not persistent and
locally folded, recumbent with

ex. planes sub// layering, small-scale folding. 20

layering: 75/45 M.

layering defined by pyrox. laminae and bands of light grey, whitish and medium grey rock. Whitish rocks appear to be feldspar rich.

Sample 0027, light to medium grey gneiss + pyrox laminae & clusters.

This is most common rock at S part of Mt. A.

Sample 0028 feldsp., Q gneiss with fracture foliation. In scree, not common. Weathering selvage of brittle Q-rich material. Some pale blue Q??

Sample 0029 mica, feldsp., Q gneiss light colour. mica. Crs fracture cleavage. In scree, not common.

(P14) c/c. similar as c/c P13
layering ⁷⁵00/60 M.

much small scale, isoclinal, recumbent folding

Sample 0030 typical gneiss of scree.

Sunday 5.1.1974

Walked along E spur to Mt. B.
All along spur seen & some alc. of
dark brown to black ore rich with
thin banding of a glossy metallic
ore, dull ore and Q. At places
the banding is clearly isclinally
folded (small scale)

Sample 0031 folded Fe ore + Q; seric

Sample 0032 alc banded ^FFe ore rich

Sample 0033 seric; mica, Q, Fe ore rich

Sample 0034 seric; Q, feldsp gneiss

Sample 0035 seric; Q, Fe ore rich.

(P15) alc.

approximate contact between Q, F,
Fe ore rich and pyrox, Q, feldsp.
gneiss.
345
layers: 40/10 M.

(P16) alc contact between Q, Fe ore rich
and pyrox. Q, feldsp gneiss. At
contact the gneiss is ^{more quartzose} ~~more quartzose~~

and contains lots of banded, lenticular
and pods of Q.

Sample 0036 (B) bluish, violet Q +
some Fe ore material (near fault
contact)

Light coloured
PE 122 contact Agneiss and dark
Q, Fe ore rock at P11

(P17) dc and scree

Q, feldsp. gneiss. + yellowish green
mineral predom. on weathering surfaces;
probably feldsp. Sample 0037

Much red Fe staining and rocks
are fractured and ^{irregular} cut by Q
veins, pods etc. Probably a FAULT

(P18) dc & scree, at foot of W spur of
Mut. B.

dark brown to black Q, Fe-ore rock
again. Higher up the spur it is overlain
by the pyrox, Q, feldsp. gneiss.

General layering at Mut. B as seen from
Mut. A 080/10 M.

Sample 0038 Q, F, Fe are rock with
some whitish flower; as result of
alteration??

PE3 looking E (Mt A \rightarrow Mt B)

contact rock types just below
small firm patch about $\frac{1}{3}$ from
col.

Conclusions. Q, F, Fe are rock bodies
in synclinal structure the Pyrox,
Q, feldspar gneiss at Mt. A

The Q, F, Fe are rock is ~~not~~ inter-
layered between the gneiss at
Mt B with shallow dip to N

Between Mt A & B probably a major
dip slip fault.
The high spur of Mt. A follows approx
the synclinal axis.

PE 4 & 5 detail shows - F
band of Q, F, Fe rock at
R12

Tuesday 7.1.1974

Collected 7 samples from the summit
ridge ~~at nearby~~ ^{& surroundings} nearby survey
points for analysis of Fe minerals
and content, and other minerals.

Sample 0039 A (2x)

B

C

D

E

F

G

Out: A I noticed some
bluish & yellowish
coloured minerals
but inside tent I could not
find them such
except a few in
minerals as Bmk
shows pack making
reddish weathered hematite

& encrustation of globular
v. light green mineral. Could
be malachite!

H bluish r.t.

I v. dark rock.

Samples collected from E spar, just above contact.

Sample 0040 A

B

C

D

E

F

Saturday 11.1.1975

(P19)

o/c Fairly laminated pyrox, Q, feldsp
aggreg + Q feldsp bands // laminae
layers 40/5-10 M. some bluish Q
Interbedded with white Fe \pm 100 cm to
Sample 0041

(P20)

o/c w-fel-bp gneiss with
thin laminae & clusters of
pyroxene. isoclinally, small-scale,
folded. light to medium grey

Sample 0042

- one of the 6 units P19

PE 8201 looking W

E plunging shallow syncline

(P21)

o/c dark grey pyrox, Q,
feldsp. rock
no Fe ~~mineraliz.~~ visible

altitude 5415 M.

some a 1. minute // Vagile

light / light 1. minute 2

hum. dry

samples 43 00044

just above crest + with
light green grass

layer of 15 cm thick white
moss - felus grass +

Sample 0045

altitude 5515 M.

(P22) light green grass on top of ridge
typical sample
0046 gravel

(P23) right on ridge rock is mostly
drier + C. hum. dry (all gravel used)
Sample 0047
" 0048

|| Photos of New man colour print 66
Bob Goldsworthy CAT 516 14-24

Accuracy 1/10000 mag variation
should be 40° W.

Sunday 12.1.1975

At survey station Knicker Peaks
(Main Mountain, most S. peak
and ridge to S and E)

(P24)

40m N & E
well, regularly layered Pyrox.
felsic & granitic
thickly compacted with
with varying amounts of Fe & Mg
Pyrox. (some dark & some light)
All for varying, especially

crs & fens &
160/80-85 M

widely to finely bedded
250/85 M (crs & fens)
various species

100/85 M \rightarrow black, weathered
PE 14 100/85 M SE seen in

int. plane. One

pyrox. with Fe & Mg

pyrox. with Fe & Mg

pyrox. with Fe & Mg

Weather. Colour generally
orangey brown.

PE 15. Below it may be

Not a sandy shale.

2nd col.

Sample 0049 detrit. pyrox. glauclite

Sample 0050 detrit. gran. glauclite

Sample 0051 det. of same. layered G, pyrox
felds. ~~gran. glauclite~~ quartz. Notice lineation & layering. Study in thin section.

(P25) detrit. calc. on top

Same as P24 but also ^{clearly spaced} layering

30 M. upper \perp , Δ reaching in
rock (not present, least interesting)

Between calc. some gran. glauclite

clearly fractured & layered (incl. layering)

At 211 R 25 M. ¹⁵⁵ fractured layering

layering ^{210/8000} M.

Sample 0052 det. granulite with typical

whitish encrustation. See also sample

of Craig Austin Could be same

Fe salt. For analysis.

Sample 0053 ~~fit~~. typical scree

Sample 0054 samples around P25

Sample 0055 samples of c/c are usually too much weathered.

Sample 0055A c/c. dk. grey f. pyrox. gneiss of 12 cm layer interbedded with lighter green

Sample 0056 V. dk. grey pyrox. rich

granulite. Probably interlayered with lighter coloured granulite as at P24.

Sample 0057 fl. leucocratic layer

with coarse feldsp. Q and Pyrox in clustars. Rare, prob. interlayered.

Sample 0058 just below peak on ridge to S. mostly pyrox. feldsp. to granulite (light coloured) + some interlayered ~~prob. (biot)~~ feldsp. pyrox. gneiss.

(P26) A/c at S end of scree layer of 1st (large) col. (wind gap) section S.

PE 16, 17 & 18

Layered sequence of coarse f. rock

coarse Q f. grey & pyrox. gneiss

layered 150/205/8000 M

Interf. & fracturing ab. similar to ~~at~~ Δ P24, 25

granulite is V. coarse Q (rounded) diam of $1\frac{1}{2}$ cm.

layer of the pyroxenite
itself with ^{mostly} coarse
less coarse pyrox (pseudomorphs).
green fangy & white crystalline.
V. coarse

Sample 0058 Granulite close to contact
with (pseud.) pyroxenite
biot. pyrox. & feldspar grains
Sample 0059 Finer ~~grains~~ further from
contact and more common rock

of this place
pyrox. & feldspar grains
Sample 0060 ~~Granulite~~ layer about
35 cm thick at left side of
PE 16 R17.

layer of pyroxenites

Sample 0061 almost 100% dark to black
pyroxene

Sample 0062 pyroxenite with some
pseudomorph fibrous mineral, probably
an amphibole.

Sample 0063 pseudomorph fibrous
mineral, probably all an amphibole.

10/11/60

Sample 0064 altered pyroxenite
red Fe staining, some green coating and
whitish encrustations.

Sample 0065 amphibolite with
green coating.

Sample 0066 altered pyroxenite
red Fe staining, slightly magnetite.

on top
22c/85

110/60

fault?

PE PE-21
22.

void layers of sequence
under fault zone
dislocation of layering.

See also PE low number, where
it flows into layering. Partly
from Howman.

Profile
belong
W

720/085

5

Friday 16.1.75

P27 d/c of 5 feet of S col
with scree at bottom
(garnet) (pyrox), Q. f. quartz.
lensing $\frac{155}{210/30}$ M.
caused by bedrock 2

changing to light grey
mottled grey
Whitish layers with irregular but
slightly disordered ^{grey} layers
up to 5-6 mm largest diam (feather) (1000
thick) and between mostly, some
over to medium size & some of
a-f. layers
fracture // layering locally with
shrinkage.

PE 23 layering.

Sample 0067 A garn. Q. f. some shaly
0067 B same d/c but less
weathered.

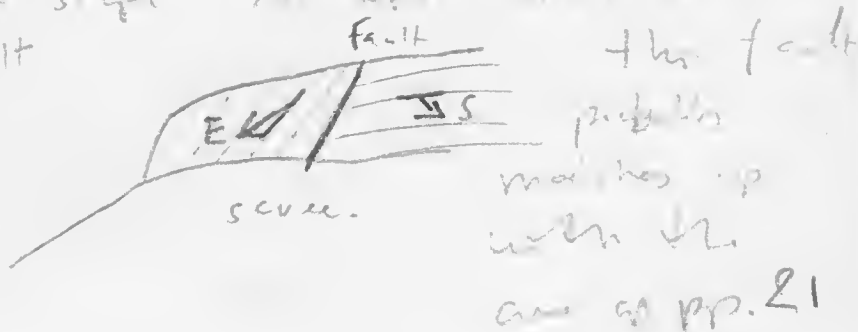
At other end of col similar

quartzes, with massive appearance
discolored there (210/100) shows garnet

Planar, smooth surfaces, parallel
 to internal layering. The rocks must
 break, due to weathering. Glay
 surfaces // layering. On

On way to 2nd col. Whiteclared
 Q. & gneisses, but locally thin
 layers of and pods of dark
 earth weathered, brittle rock
 with greenish staining and ^{pyromorphite} amphibole
 alteration as near contact.

PE 24825 looking S to contact
 across 1st col. layered sequence +
 vice slope. At top could be a
 fault



(P28) at S end 2nd col.
 layering 210/75-80

at other side of col similar
 shaly and dip. also rocks
 look similar.

PE 26

finely laminated
Q. f. green

brown green

Sample
0068

part of prod. v. coarse Q.
finely laminated
Q. f. green. + thin layers of
brownish green

slightly zone more also
also irregular layer (to the same
not // to layer) of darker
brown green.

Sample 0069 calc. column green
" 0069 calc. column laminated
green

0070 calc. same

0071 calc. " + brown sample

0072 calc. thin layer of

light green green

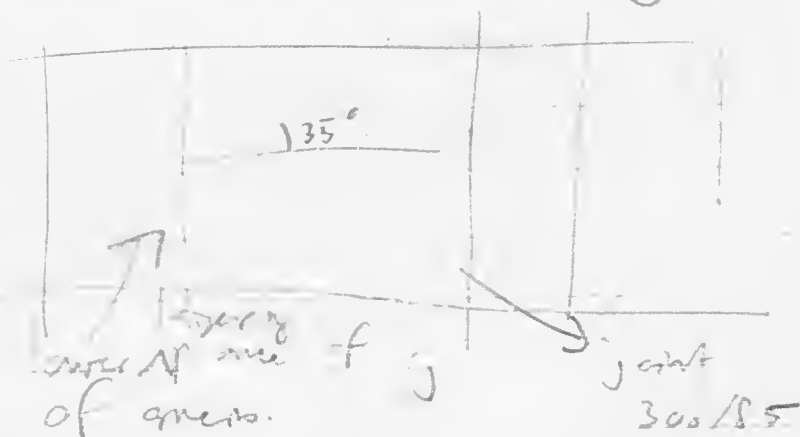
5-10 cm thick.

if green.

On the way back to camp
at foot of cliff just S
of scree of mch S. col.
micaceous rock with light blue
green staining. float close to present.

~~light~~ sils. Sample 0013
Biot (para) Fe, Cu oxide + talc + quartz +
Fe, Cu oxide + talc + quartz +

On lower part of the quartz
not above scree slope
well developed nodules & dyke.



bearing to Dogans Nunataks

123° Rg Variation is 58

True bearing is $\begin{array}{r} 123 \\ - 48 \\ \hline 75 \end{array}$

It should be 76° True. so there is here an magnetic anomaly

M	Time	Var	M	Var
27	343	58	329	14
102	102	58	84	18
79	79	58	65	14
40	40	55	22	18

$$\begin{array}{r} 123 \\ - 48 \\ \hline 75 \end{array}$$

$$\begin{array}{r} 75 \\ - 58 \\ \hline 22 \end{array}$$

Friday 16. 1. 75

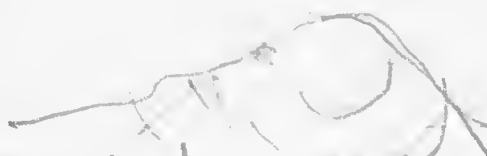
On the way to Mt Cook
Leckie Ra.

Mt Channon

Layering: 250-260 / PE 27
M. Channon + Dissected Mts.
M. all over
80-85

Mt. of Cyclop Peaks.

layering: 240/85-65.



Most S. large Mt. could have
sharp syncline. axis trending 160°.

Mt Cook

regional layering 225/60-70.

PE 28 & 29 to 32 Approach

Mt Cook from E.

and layering; fault with flexing
of layers.

Sunday 12/1/97

Twisted Mt. Long Point in

Manson - PCM.

climbed to W. Sp. ²⁸⁵

a general layering 350/60-70 M.

Thick dark layer of ~~pyrox.~~

(ol. sp. pyrox. green at

E peak near col. see

P F 28-30?

Sample 0074

alt. ser.

ch. charnockite ser.

Sample 0075

medium gr. charnock

with which ancient
dikes.

Sample 0076

charnock with

pyrox. with banded
layer.

Sample 0077

banded pyrox. &

ol. sp. green.

Sample 0078

black G

Sample 0079

felds. pyrox. green.

From the rocks of old and
also from Brown's local the same

to dark brown

but is certainly important
and slab of some mineral in the
the same place where the
flourish.

Brown soil and the Adhem
are much more rugged and
jagged.

April 1911

from 2 to 11 M

// to 11

32. 1975
Masson Range, Rhinodaddle.

PG 28228 Rhinodaddle etc area +
metalliferous

PG 29 channel to breccia

Sample 0080 some channel breccia
+ black (very rich) ss.

Just in front of highest snow slope

of PG 28229. (right of hut)
Sample 0080 channel + whitish
encrustations. (terrace)

Intersected line of metalliferous etc at
strongly oxidized and highly weathered
pyrite foliation. grades.

The composition is very light.

yellowish mud color of Q

(approx. 5-10 cm long) etc.

Sample 0081

Just at the corner right hand
side metalliferous area 2 ft.

some dark etc of weathered

channel etc. very much

vertical trending 240
240 M.

rock appears to be very homogeneous
with medium f. color of chlorite.

Sample 9082

near met + late
below some old See PG 32

mostly brownish chlorite
with some mesular bands
(not persistent) of black
feldsp, pyrox. grains which
are subparallel to foliation
(65/85-90 M)

Also lenses and veins of
of black Q sub// foliation.

Sample 9083 core channel
9084 base of channel

Sample 9085 pyrox. foliated quartz
+ Q. ~~to~~ feldsp. grains + minor
dark rock

Samples 9087-90 } relatively
Samples 9091-95 } rare, only in

at the west (more N) rock
 fragmentary occurs better lower
 rock of light ~~and~~ brown and
 dark brown to black color
 ice PG 34
 G+Latitude $50^{\circ} 15'$ M
 other reading $34^{\circ} 15' 35''$
 $52-54/8.55$

DH 4 or 6 Daves Ra
 to clear ^{quartzite} from N to S
 apparently dark brown ^{massive homogen}
 overlying ^{quartzite} ^{quartzite} ^{quartzite}
 rock

* Claim for Hazardous Fly
Allawana & Traverse
Allawana. Ken Vassil
National Marine, Melbourne

Aph. 58 Mt. Biscoe - W. King Edw Gulf

R 12, 7212 L (21)

structure Mts Griffith (R Bride)

dip slope Mt. Bennett E/40-45 T

Aph. Amundsen Bay - Mt. Biscoe R 3b

9102 R (38)

well layered sequence of drk and light
coloured metamorphous dipping SSW/30-40 T
Mt Riiser-Larsen.

Aph. Leckie R - Amundsen Bay R 10

7238 L (49)

dip slope of Mt. Pardee SW-SSW/30-40

General Notes:

APh(29)Horseasen Glec - Hansen Mt.

Rim 2H (9005-9184) Mo. R9023

Shows Mt. King & Seavers Ridge
with inboarded rocks with large ~~isoclinal~~ ^{isoclinal} ~~structural~~ ^{structural}
fold which is cut off at
top of ridge by a slab of
other colored rock in form of
truncated ~~dis~~ elongated disc.



Mnt. Parde & Mnt. Griffiths in partic.
are ridge like structures with relatively
flat tops (summit ridges), like Pietus
Mountain. We should check out these
structures.

see APh. Mt. Biscoe - Horseasen Glec. R 15
7097 (L) (20)

